

Phase 2 of the Individual Ability to Pay Model presents a comprehensive summary of the applicant's financial status and quantifies the applicant's ability to pay a penalty or contribution. This chapter describes the Individual Ability to Pay Model's Phase 2 output. Section A provides an overview of the model output. Section B discusses the model's summary of the applicant's finances. Section C presents a detailed discussion of the two scenarios calculated by the model to estimate whether the applicant can afford to pay a penalty or contribution. Section D explains the meaning of the "flags" that may be generated by the model, which warn of inconsistencies in the underlying financial information provided by the applicant and/or unusual elements in the applicant's finances. Finally, Section E discusses the model's default values, explains their application, and describes instances that warrant adjustment.

#### **A. OVERVIEW OF THE PHASE 2 OUTPUT**

The Phase 2 model output consists of three major sections. The first section provides a snapshot view of the applicant's finances. It summarizes the income information reported by the applicant on his or her federal tax forms, as well as the information about the applicant's living expenses, assets, and liabilities taken from the financial data request form.

The second section of the model evaluates the applicant's ability to pay the penalty or contribution sought by EPA. In this section, the model does not provide a single answer about an individual's ability to pay. Instead, the model assesses the two fundamental methods by which an applicant could fund a contribution -- cash flow and a loan from a commercial lending institution. Both of these scenarios compare the maximum contribution the individual can make with the penalty sought by EPA. If this maximum contribution exceeds the penalty amount, the model concludes that the individual can afford to pay. If this maximum contribution is positive but less than the penalty

amount, the model presents this amount as the partial payment the individual can afford through the particular funding approach. (Additionally, if you enter zero as the penalty amount sought by EPA, the model will report the maximum contribution the individual can make). If the applicant's maximum contribution is zero or negative, then the model concludes that the applicant can afford no penalty payment through the particular funding scenario. For example, in the cash flow scenario, if the applicant's expenses exceed income so that available cash flow is negative, the model concludes that the applicant cannot afford to fund a contribution through cash flow. Similarly, in the loan scenario, if the applicant's loans already equal at least 36 percent of income, the model concludes that the applicant cannot afford to fund a contribution through taking out a loan.

In some cases, the ability-to-pay conclusions in Scenarios 1 and 2 may differ — that is, the model indicates that the applicant can afford a higher payment or contribution in one of the scenarios than in the other. In such cases, we recommend that you make the conservative assumption that the applicant can only afford the smaller of the two amounts. By requesting only the smaller amount, you guard against the possibility of causing the applicant undue financial hardship.

The third section of the Phase 2 output generates "flags" warning of either inconsistencies in the applicant's underlying financial information or unusual or complex features of the applicant's finances. The model performs internal checks of the accuracy and consistency in the information furnished by the applicant. If, for example, the applicant has taken a home mortgage interest deduction on his or her taxes but fails to claim any value for a personal residence on the financial data request form, the model will issue a flag alerting you to this discrepancy. These flags are issued only if inconsistencies or unusual features are present for a particular applicant. When these flags arise, you may need to either consult a financial expert or collect additional information from the applicant.

## **B. APPLICANT'S FINANCIAL STATUS**

The first five to six pages of the model's output summarize the applicant's financial status. The Phase 2 Tax Form Data Summary on Page 1 (or Pages 1 and 2, for applicants who are "married filing separately") shows the income information reported on the federal tax forms that is used within the Phase 2 analysis. As the sample output shows in Exhibit 4-1, the applicant (Fred Flashy) filed a federal tax form 1040 for the years 1993 through 1995. He shows income from wages, tax-exempt interest, capital gains, other, partnership or S corporation, and estate or trust sources.

The next page, the Net Worth Summary, summarizes the financial information provided by the applicant on the financial data request form about his or her assets (e.g., bank accounts, investments, real estate), liabilities (e.g., mortgages, credit card debt), and living expenses. As can be seen in Exhibit 4-2, Mr. Flashy reports total assets of \$135,000, total liabilities of \$163,000, annual debt payments of \$20,340, and annual living expenses of \$53,400.

The Summary of Living Expenses on the next page details the applicant's current living expenses, including any debt payments the applicant funds. As Exhibit 4-3 shows, Mr. Flashy has numerous living expenses, including home maintenance, utilities, and various forms of insurance, as well as mortgages and other debt and tax payments.

The following page, the Summary of Applicant's Income Sources, categorizes the applicant's income and displays this information in both dollar (top half of page) and percentage (bottom half of page) terms. In the sample output presented in Exhibit 4-4, Mr. Flashy's income has progressively decreased from a high of \$102,500 in 1993 to \$62,500 in the most recent year (1995). Averaged over the three years, his income has been approximately \$74,500 per year. Most of his income comes from wages and salaries (an average of 61 percent). However, his income from business sources has also been significant (averaging about 22 percent), although declining steadily between 1993 and 1995. The note at the bottom of the page warns that his total income varies significantly over this period; you may want to consult the help system or the User's Manual to determine whether to change the smoothing constant, which will change the weights given to each year's income.

The next page, the Applicant's Rated Financial Status, presents an overall snapshot view of the applicant's financial status. As shown in Exhibit 4-5, the applicant's total average cash income is presented and compared to the median household income for the applicant's county of residence and household size. In the example, Mr. Flashy's average income is 171.2 percent of the median household income in his county (Cook County, Illinois) and adjusted for his household size of two.

Next, the applicant's average income is compared with his or her living expenses, as detailed in the financial data request form on page 4. The available cash flow is computed by subtracting living expenses and a contingency allowance from average total income. The contingency allowance represents a safety margin to cover unforeseen expenses. As explained in detail in Appendix A of this manual, the contingency allowance ranges between 5 and 15 percent according to the applicant's income relative to the median (i.e., a smaller contingency is accorded to higher income applicants). As shown in Exhibit 4-5, Mr. Flashy has cash flow of \$18,416 per year over and above his household expenses and contingency allowance. This is Mr. Flashy's available cash flow.

This page also summarizes the applicant's net worth by first totaling the market values of all assets described in the applicant's financial data request form. Net worth is calculated by subtracting the applicant's total liabilities from these assets. Appendix A describes the calculation in detail. As Exhibit 4-5 shows, Mr. Flashy has negative net worth of (\$28,000).

Finally, this page summarizes the average proportion of the applicant's cash income allocated for debt payments. In the example, shown in Exhibit 4-5, Mr. Flashy pays \$20,340 per year in debt payments, which represents 27.3 percent of his average income.

## Exhibit 4-1

Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
 Run Description: \$50,000 Run  
 Analyst: Sue Blue

Tax Form Data:**Applicant**

	<u>1995</u>	<u>1994</u>	<u>1993</u>
Year:	1040	1040	1040
Tax Form Type:			
Wage Income:	40,000	50,000	50,500
Taxable Interest Income:			
Tax-exempt Interest Income:	5,000	5,000	9,000
Dividend Income:			
Alimony Received:			
Business Income/Loss:			
Capital Gain/Loss:	4,000		5,000
Other Gains/Losses:			
Total IRA Distributions:			
Total Pensions:			
Farm Income:			
Total Social Security:			
Total Other Income:	7,000	2,000	
Real Estate Taxes:	3,000	2,000	2,000
Mortgage and Investment Interest:	9,600	10,320	10,800
Depletion:			
Depreciation/Amortization:			
Rental Taxes:			
Rental Depreciation/Depletion:			
Total Rents/Royalties:			20,000
Partnership/S Corporation:	8,500	12,000	18,000
Estate & Trust:	(2,000)	3,000	
REMIC:			
Farm Rental Income/Loss:			
Farm Depreciation:			
Farm Rental Depreciation:			

## Exhibit 4-2

Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
 Run Description: \$50,000 Run  
 Analyst: Sue Blue

Net Worth:

Bank Accounts:	5,000
Investments:	65,000
Retirement Funds & Annuities:	10,000
Life Insurance Policies:	0
Vehicles for Commuting:	5,000
Other Vehicles:	0
Personal Property:	10,000
Primary Residence:	0
Other Real Estate:	0
Other Assets:	40,000
<b>Total Assets:</b>	<b>135,000</b>
Credit Cards:	2,000
Vehicle Loans:	1,000
Household Goods Loans:	0
Real Estate Loans:	145,000
Other Debt:	15,000
<b>Total Liabilities:</b>	<b>163,000</b>
<b>Annual Debt Payments:</b>	<b>20,340</b>
<b>Annual Living Expenses:</b>	<b>53,400</b>

## Exhibit 4-3

Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
 Run Description: \$50,000 Run  
 Analyst: Sue Blue

Current Living Expenses:

	<u>Monthly</u>	<u>Annual</u>
<b>A. Living Expenses</b>		
Rent	\$0	\$0
Home Maintenance	\$67	\$800
Auto Fuel Maint./Other Transp.	\$50	\$600
Utilities:		
Fuel (gas, etc.)	\$75	\$900
Electric	\$25	\$300
Water/Sewer	\$33	\$400
Telephone	\$50	\$600
Food	\$500	\$6,000
Clothing/Personal	\$167	\$2,000
Medical Costs	\$0	\$0
<b>B. Insurance</b>		
Household Insurance	\$42	\$500
Life Insurance	\$42	\$500
Automobile Insurance	\$167	\$2,000
Medical Insurance	\$0	\$0
<b>C. Debt Payments</b>		
Mortgage Payments	\$1,300	\$15,600
Car Payments	\$95	\$1,140
Credit Card Payments	\$100	\$1,200
Educational Loan Payments	\$0	\$0
Other Debt Payments	\$200	\$2,400
<b>D. Taxes</b>		
Property Taxes	\$142	\$1,700
Federal Income Taxes	\$480	\$5,760
State Income Taxes	\$210	\$2,520
FICA	\$290	\$3,480
<b>E. Miscellaneous Expenses</b>		
Childcare	\$0	\$0
Current School Tuition	\$0	\$0
Legal/Professional	\$0	\$0
Other Expenses	\$417	\$5,000
<b>TOTAL LIVING EXPENSES</b>	<b>\$4,450</b>	<b>\$53,400</b>

# Exhibit 4-4

## Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
Run Description: \$50,000 Run  
Analyst: Sue Blue

### Summary of Applicant's Income Sources

#### Income:

	<u>1995</u>	<u>1994</u>	<u>1993</u>	<u>Average</u>
Wages and Salaries	40,000	50,000	50,500	45,546
Interest and Dividends	5,000	5,000	9,000	5,895
Capital Gains/Losses	4,000	0	5,000	2,945
Retirement-related	0	0	0	0
Business	6,500	15,000	38,000	16,265
Farm	0	0	0	0
Other	7,000	2,000	0	3,836
<b>Total</b>	<b>62,500</b>	<b>72,000</b>	<b>102,500</b>	<b>74,486</b>

#### Percentage Income:

	<u>1995</u>	<u>1994</u>	<u>1993</u>	<u>Average</u>
Wages and Salaries	64.0%	69.4%	49.3%	61.1%
Interest and Dividends	8.0%	6.9%	8.8%	7.9%
Capital Gains/Losses	6.4%	0.0%	4.9%	4.0%
Retirement-related	0.0%	0.0%	0.0%	0.0%
Business	10.4%	20.8%	37.1%	21.8%
Farm	0.0%	0.0%	0.0%	0.0%
Other	11.2%	2.8%	0.0%	5.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

» The applicant's income varies significantly from year to year. You may want to consider changing the smoothing constant. Consult 'Help' or the User's Manual for further information.

# Exhibit 4-5

## Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
Run Description: \$50,000 Run  
Analyst: Sue Blue

Contribution Sought by EPA	50,000
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### Income Ranking

Applicant's Total Average Income:	74,486
Median Household Income for Cook County - Household of 2	43,500
Applicant's Income Relative to Median:	171.2%

### Available Cash Flow

Applicant's Total Average Income:	74,486
Total Claimed Living Expenses:	53,400
Cash Flow Contingency Percentage:	5.0%
Cash Flow Contingency Allowance:	2,670
Applicant's Total Living Expenses:	56,070
Applicant's Available Annual Cash Flow:	18,416

### Net Worth Calculation

Applicant's Total Assets:	135,000
Applicant's Total Liabilities:	163,000
Applicant's Net Worth:	(28,000)

### Assessment of Debt Capacity

Applicant's Total Average Income:	74,486
Applicant's Total Annual Debt Payments:	20,340
Applicant's Debt Payments as Percentage of Income:	27.3%



## C. ABILITY TO PAY SCENARIOS

The two fundamental ways an applicant can fund a penalty or environmental cleanup contribution -- through excess cash income or taking out a loan -- are analyzed and presented on the following pages of the model's output. Each scenario represents a different approach that an individual could take to finance a payment. Thus, the results of the two scenarios are independent and cannot be added together.

An applicant may be able to afford the penalty or contribution sought by EPA through one scenario but not through the other. For example, the applicant may have sufficient available cash flow but too many debts to finance a penalty or contribution. The answers from each ability to pay scenario will differ under these circumstances, reflecting the differences between individuals' personal finances. In these cases, we recommend you make the conservative assumption that the applicant can only afford the smaller of the two amounts. By using the lesser amount, the user guards against causing the applicant undue financial hardship.

### 1. Scenario 1 — Available Cash Flow

Individuals can pay a penalty or contribution with cash income they have left over after paying for living expenses. Scenario 1 of the model calculates an individual's annual after-tax cash income, deducts his or her living expenses, and further deducts a contingency allowance to provide a margin of safety against emergencies and unforeseen expenses. Any income remaining after these deductions is defined as "**available cash flow**" and is regarded as cash available to fund a penalty or contribution. Consistent with the ABEL model used to examine corporations' ability to pay, the Individual Ability to Pay Model assumes that five years of an applicant's available cash flow can be used to support a penalty payment. The model computes the present value of five years of available cash flow using the short-term consumer loan rate as the discount rate.<sup>1</sup>

As shown in Exhibit 4-6, the top half of the Scenario 1 output first reiterates the contribution sought by EPA. The next figure presented, "Cash Flow to Fund Contribution," equals the minimum of a) the applicant's total available cash flow and b) the amount of the applicant's cash flow needed to fund the contribution sought by EPA. If the applicant has positive available cash flow, but it is insufficient to fund the full amount of the penalty or contribution sought by EPA, then this figure will equal the total amount of the applicant's annual available cash flow. If, however, the applicant has more than enough cash flow to fund the contribution, the model will display only the annual amount needed to generate payment of the contribution. As shown in the example in Exhibit 4-5,

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<sup>1</sup> This value is the same as the amount of a five-year loan that an applicant could support with available cash flow. Note that although the lump-sum payment is described as the five-year loan an applicant can support using only cash flow, in fact the applicant can choose any funding method he or she finds appropriate, including selling assets, liquidating bank accounts, reducing living expenses, or taking out a loan.

Mr. Flashy's total annual available cash flow is \$18,416. The figure reported in Exhibit 4-6 as available cash flow is \$15,292 -- the annual amount computed by the model over five years as necessary to generate a lump-sum payment to EPA of \$50,000.

The third figure presented is the "Loan Rate for a 5 Year Unsecured Loan." This figure is used as the discount rate by the model in computing the present value of five years of available cash flow. This rate is the most recent 24-month loan rate charged by commercial lending institutions (as reported in Table 1.56 of the *Federal Reserve Bulletin*). As such, it serves as a proxy for the applicant's opportunity cost of capital.

The fourth figure presented is the "Present Value of 5 Years' Cash Flow." This figure represents the lower amount of a) the maximum contribution the applicant can fund through available cash flow and b) the contribution sought by EPA (plus a contingency margin). If the applicant cannot afford to pay the full amount of the contribution sought by EPA using available cash flow, then this figure will equal the present value of 5 years of the applicant's available cash flow. If, however, the applicant can afford to pay the full amount through available cash flow, then this figure will equal the contribution sought by EPA plus a contingency (explained below).

The next figure presented, "Contingency Allowance" computes the increase in the applicant's contingency allowance associated with the penalty or contribution. Because the contribution represents a new expense for the applicant, the overall contingency allowance must be adjusted accordingly. The final figure in the top half of the page, entitled "Contribution Individual Can Pay to EPA (Present Value of Cash Flow Adjusted for Allowance)" is the present value of five year's cash flow minus the additional contingency allowance. It represents the total contribution that the applicant can fund from available cash flow. Note that if the applicant's available cash flow can support a payment that exceeds the contribution sought by EPA, the maximum amount the model reports is the contribution sought by EPA.

The middle section of the page entitled "Conclusion" compares the contribution amount that the model calculates could be supported with the applicant's available cash flow (i.e., "Present Value of Cash Flow Adjusted for Allowance") with the penalty or contribution sought by EPA. The conclusion will state either:

- **The applicant can pay the proposed contribution from cash flow.**  
This message is triggered when the maximum contribution the applicant can support with available cash flow exceeds the penalty or contribution amount.
- **The applicant can only pay \$\_\_\_\_ of the proposed \$\_\_\_\_ from cash flow.**  
This message is triggered when the applicant has positive available cash flow but it is insufficient to fund the entire penalty or contribution sought by EPA.

- **The model is unable to calculate a contribution from cash flow because the applicant's current living expenses exceed income. The applicant cannot fund a contribution using cash flows.**  
This message is triggered when the applicant's available cash flow is either zero or negative (i.e., expenses exceed income).
- **The user has not entered a proposed contribution. The applicant can pay a maximum contribution of \$\_\_\_\_\_ from cash flow.**  
This message appears when you do not enter a value (or you enter a value of zero) for the contribution sought by EPA in the initial "Case Description Details" screen (see Exhibit 3-3). The model calculates the maximum payment the applicant can afford using available cash flow.

The bottom portion of the page (Exhibit 4-6) presents the model's estimates of the impact on the applicant's financial status of the contribution the applicant can afford with available cash flow. The "Before" and "After" figures trace this impact. The "Before" figures reiterate the applicant's current financial status. The "After" figures are adjusted for the impact of a penalty or contribution made with the applicant's available cash flow, as follows:

- **Total Living Expenses** If the contribution that can be funded from available cash flow is positive, living expenses will increase. In Exhibit 4-6, the applicant's living expenses will increase by the annual payments and associated contingency needed over a five year period to pay the penalty or contribution sought by EPA.
- **Available Cash Flow** The applicant's available cash flow will decrease by the amount needed to fund the penalty or contribution sought by EPA. If all of the applicant's available cash flow is needed to fund a contribution, this figure will be zero.
- **Total Liabilities** Because this funding scenario assumes that five years of the applicant's available cash flow is available to fund a penalty or contribution, this payment represents a new liability for the applicant. Accordingly, total liabilities increase by the amount of the contribution which the applicant can afford.
- **Net Worth** The value of the applicant's net worth after liabilities have been re-computed is adjusted downward to reflect the contribution and the corresponding increase in the applicant's total liabilities.
- **Total Annual Debt Payments** The applicant's total annual debt payments will rise by the amount of the annual payments needed to fund the contribution.
- **Debt Payments as Percentage of Income** Computed as the applicant's annual debt payments divided by his or her total average income, this proportion will rise to

reflect the contribution, as long as the applicant's current available cash flow is positive. Note that when this exceeds 36 percent of the applicant's income, the model's conclusion may be invalid. The user should contact a financial expert in such cases.

A complete description of the equations used in the Scenario 1 calculations is presented in Appendix A.

# Exhibit 4-6

## Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
Run Description: \$50,000 Run  
Analyst: Sue Blue

### Ability to Pay Scenario 1: Cash Flow

Contribution Sought by EPA:	50,000
Cash Flow to Fund Contribution:	15,292
Loan Rate for 5 Year Unsecured Loan:	14.0%
Present Value of 5 Years' Cash Flow:	52,500
Contingency Allowance:	2,500
Contribution Individual Can Pay to EPA (Present Value of Cash Flow Adjusted for Allowance)	50,000

### Conclusion

The applicant can pay the proposed contribution from cash flow.

### Impact on Applicant's Financial Status

	<u>Before</u>	<u>After</u>
Total Average Income:	74,486	74,486
Total Living Expenses:	56,070	71,362
Available Cash Flow:	18,416	3,124
Total Assets:	135,000	135,000
Total Liabilities:	163,000	213,000
Available Assets:	(28,000)	(78,000)
Total Average Income:	74,486	74,486
Total Annual Debt Payments:	20,340	34,904
Debt Payments as Percentage of Income:	27.3%	46.9%

## 2. Scenario 2 — Debt Capacity

The other means an individual can use to pay a penalty or environmental cleanup contribution is to take out a loan. Commercial lending institutions use a rule-of-thumb that individuals can support debt payments of up to 36 percent of their total income. Available debt capacity represents the difference between this 36 percent guideline and the applicant's current debt payment to income ratio. Individuals with positive debt capacity will probably be able to qualify for a loan from a commercial lender. Scenario 2 of the model examines whether an applicant's current debt payments are less than 36 percent of their total income. If so, the model regards the applicant as having positive debt capacity and, further, computes the amount of a five-year loan at the prevailing commercial lending rate for personal loans that would take the individual up to this 36 percent limit.

As shown in Exhibit 4-7, the top half of the page reiterates the following two values:

- Contribution sought by EPA
- Current debt payments

The next figure, "Additional Debt Payment" represents the amount of additional debt the applicant could theoretically take on, up to either the 36 percent threshold or the penalty or contribution sought by EPA, whichever is lowest. In the current example, Mr. Flashy presently pays approximately 27.3 percent of his annual average cash income of \$74,486 in debt payments. If, instead, he took on additional debt up to the 36 percent threshold, he could afford to make additional annual loan payments calculated as:

$$(0.36 - 0.273) * \$74,486 \approx \$6,475$$

The next figure provided is the "5 Year Supportable Loan with Additional Debt Payment." If the value of this loan is less than the penalty or contribution sought by EPA, it is simply the value of a five-year loan that could be supported with the additional debt payment value. If this value is greater than the penalty or contribution sought by EPA, it will equal the contribution. Similarly, the "Additional Debt Payment" figure will equal only that annual amount needed to fund the contribution sought by EPA.

Note that the model's calculations assume that the applicant's current level of annual debt payments will remain constant for five years. If this presumption is not appropriate, the user should seek the assistance of a financial analyst.

The middle section of the page entitled "Conclusions" compares the applicant's supportable contribution from debt capacity with the penalty or contribution sought by EPA. The conclusion will state one of the following:

- **The applicant can pay the proposed contribution by obtaining additional loans.**  
This message is triggered when the maximum contribution the applicant can support with additional debt capacity exceeds the penalty or contribution amount
- **The applicant can only pay \$\_\_\_\_ of the proposed \$\_\_\_\_ by obtaining additional loans.**  
This message is triggered when the applicant has additional debt capacity but it is insufficient to fund the entire penalty or contribution sought by EPA.
- **The model is unable to calculate a contribution using additional debt capacity because the applicant's current debt payments already exceed 36 percent of income. The applicant cannot fund a contribution by assuming additional debt.**  
This message is triggered when the applicant has no additional debt capacity (i.e., current debt payments exceed 36 percent of income).
- **The user has not entered a proposed contribution. The applicant can pay a maximum contribution of \$\_\_\_\_ by obtaining additional loans.**  
This message appears when you do not enter a value (or you enter a value of zero) for the contribution sought by EPA in the initial "Case Description Details" screen (see Exhibit 3-3). The model calculates the maximum payment the applicant can afford by obtaining additional loans.

The bottom portion of the page estimates the impact on the applicant's financial status of taking on additional debt. The "Before" and "After" figures trace this impact. The "Before" figures reiterate the applicant's current financial status. The "After" figures are adjusted for the impact of a contribution made with an applicant's additional debt capacity, as follows:

- **Total Living Expenses** If the applicant's additional debt capacity is positive, then the model assumes that the applicant can take out additional loans to fund a contribution. The additional loan payment increases the applicant's living expenses.
- **Available Cash Flow** The applicant's available cash flow will fall by an amount equal to the additional loan payment and contingency needed to fund a contribution. Note that when available cash flow becomes negative due to the increase in liabilities, the model's conclusion may be invalid. The user should contact a financial expert in such cases.
- **Total Liabilities** The applicant's total liabilities will increase with the new loan. This increase equals the amount of the penalty or contribution the applicant can afford.
- **Net Worth** The value of the applicant's net worth after liabilities have been re-computed is adjusted downward to reflect the increase in the applicant's total liabilities.

- **Total Annual Debt Payments** The applicant's total annual debt payments will rise by the amount of the annual payments needed to fund the contribution.
- **Debt Payments as Percentage of Income** Computed as the applicant's total average income divided by his or her annual debt payments, this proportion will rise if the applicant has positive debt capacity.

A complete description of the equations used in Scenario 2 is presented in Appendix A.



# Exhibit 4-7

## Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
Run Description: \$50,000 Run  
Analyst: Sue Blue

### Ability to Pay Scenario 2: Loans from Commercial Lenders

Contribution Sought by EPA:	50,000
Current Debt Payments:	20,340
Additional Debt Payment:	6,475
Total Annual Debt Payments:	26,815
5 Year Supportable Loan with Additional Debt Payment:	22,229

### Conclusion

The applicant can only pay \$22,229 of the proposed \$50,000 by obtaining additional loans.

### Impact on Applicant's Financial Status

	<u>Before</u>	<u>After</u>
Total Average Income:	74,486	74,486
Total Living Expenses:	56,070	62,869
Available Cash Flow:	18,416	11,617
Total Assets:	135,000	135,000
Total Liabilities:	163,000	185,229
Available Assets:	(28,000)	(50,229)
Total Average Income:	74,486	74,486
Total Annual Debt Payments:	20,340	26,815
Debt Payments as Percentage of Income:	27.3%	36.0%

## **D.     FLAGS**

The model executes a number of internal checks to verify the consistency of information provided by applicants in their federal income tax returns and financial data request forms. It also checks for financial anomalies. If an inconsistency or anomaly is found, the final section of the model's output will issue a "flag" alerting the user. Each of these flags is discussed in turn.

### **1.     Applicant's Filing Status**

**Flag:** "The applicant's filing status is 'Married Filing Separate Return.' Verify that you have entered tax returns and financial data for both spouses. Consult a financial expert if you do not have this information."

This flag alerts you in cases in which the applicant is married but files a separate tax return from his or her spouse. You need to make sure that a) the applicant submits both his or her tax returns and his or her spouse's tax returns, and b) the information provided in the financial data request form reflects the joint finances of the applicant and his or her spouse.

A common strategy undertaken by individuals to avoid paying a penalty to EPA is to claim that their spouse's finances are irrelevant to their environmental liabilities. Some applicants go so far as to assert that their spouses own all of their assets (e.g., bank accounts, money market funds, real estate) but then also claim in their own name all of the liabilities (e.g., residential mortgages, loans). The legality of the spouse's responsibility for such assets and liabilities varies by state. EPA policy at the settlement stage of negotiations, however, is that an environmental liability is no different than any other type of liability. In general, individuals who are married contribute to the payment of expenses or liabilities incurred by their spouses. As a result, the total finances of an applicant and his or her spouse must be viewed as available for a penalty payment.

If you have additional questions about this position, please call Jonathan Libber at 202/564-6011.

### **2.     Complex Income Sources**

**Flag:** "Applicant income is reported from at least one of the following sources: rental, royalties, partnership, S Corporation, estate or trust, REMIC, farm, capital gains/losses, and other gains/losses. Consult a financial expert for assistance."

This flag is issued to alert you to the fact that part of the applicant's income comes from a complex source. It is often difficult to estimate the actual cash flow (or losses) generated from these sources without the assistance of a financial expert. Large losses, for example, from a partnership may reflect "paper" losses and not real out-of-pocket cash losses to an applicant. If a significant

portion of the applicant's income, whether positive or negative, comes from one of these sources, you should seek the assistance of a financial expert.

### **3. Under-Reported Income**

**Flag:** "The income reported by the applicant on the Financial Data Request Form is more than 10 percent different from that which the applicant reported on his or her latest tax return. Check with applicant."

The model conducts an internal check to compare the income reported by the applicant on the financial data request form with the total income computed from his or her latest tax form. If the absolute value of the difference between the applicant's self-reported income from his or her financial data request form and that reported on the most recent tax form equals more than 10 percent of the income from the tax return, this flag is issued.

A number of plausible reasons may exist to explain such a difference. The applicant's tax return reflects last year's income, whereas his or her current income may have changed since that time. Because the model uses the applicant's federal income tax forms in calculating the applicant's ability to pay, determining the cause of this discrepancy is important, particularly if the applicant's income has dropped since they last filed a tax return. You should ask the applicant for more information if this flag appears.

### **4. Under-Reported Market Value of Interest-Bearing Assets**

**Flag:** "The applicant may have under-reported the market value of some or all interest and dividend bearing assets. Ask the applicant for documentation of the market valuations."

The model conducts an internal check to compare the value of the interest- and dividend-bearing assets claimed on the individual financial data request form with the interest and dividend income claimed on the latest tax return. To do so, the model conservatively estimates the value of the applicant's interest- and dividend-bearing assets by dividing the income reported on his or her most recent tax return by 10 percent. This estimate is conservative because 10 percent is a relatively high return for these types of assets -- and the higher the return used as a divisor, the smaller the estimated value. This estimated value is then compared with the information furnished by the applicant on their financial data request form. If the self-reported value of these assets (from the financial data request form) is less than the estimated value (based on tax return data), then this flag is issued.

If this flag appears, you should ask the applicant for documentation of the market value of interest and dividend-bearing assets and use this additional information as the basis for subsequent model runs.

## **5. Inconsistent Home Mortgage Deduction**

**Flag:** "The applicant claimed a mortgage deduction in [year], but did not list home residential property on the Financial Data Request Form. Follow-up with applicant."

The model checks whether a mortgage deduction was taken by the applicant on his or her tax return. If so, it then checks to insure that the applicant also reports the value of a residence on their financial data request form. You should seek additional information from the applicant if this flag is issued in order to resolve this inconsistency.

## **6. Under-Reported Market Value of Real Estate**

**Flag:** "The applicant may have under-reported the market value of real estate holdings. Ask the applicant to provide documentation for the basis of the market valuation."

The model performs an internal audit of the market value of real estate self-reported by an applicant on his or her financial data request form. First, the model totals the real estate taxes claimed by the applicant in his or her federal income tax return for both his or her primary residence, vacation real estate, and rental real estate. Next, the model conservatively estimates the assessed value of this property by dividing the taxes paid by 10 percent. This step assumes that the locality of the property has a property tax rate of 10 percent -- far higher than nearly all property tax rates. Use of a such a high property tax rate is conservative because it is used as a divisor (i.e., the higher the rate, the lower the estimated property value).

If the estimated assessed value of the applicant's real estate exceeds the value claimed in the applicant's financial data request form, then the applicant has probably under-reported the value of this property by a significant amount. If this flag appears, you should ask the applicant for further documentation. If the applicant is unable to provide persuasive documentation, you should seek the assistance of a financial expert who can pursue other avenues of research to estimate the market value of an applicant's real estate holdings.

## **7. Income Variation**

**Flag:** "The applicant's total income varies significantly from year to year. Verify your data inputs."

This flag warns you of instances in which the applicant has a high degree of variation in total income. If this flag appears, you should first check your data inputs to make sure that you did not incorrectly enter this data into the model.

If your data inputs are correct, you may want to consider altering the smoothing constant. Modifying the smoothing constant changes the weights used to estimate the applicant's average total

income. Change the smoothing constant only if you think a different weighting scheme will provide a more accurate picture of the applicant's future earnings potential. (See Section E below or Appendix A for a detailed description).

## **8. Negative Net Worth**

**Flag:** "Prior to calculating a contribution, the applicant's liabilities exceeded assets. The potential contribution calculated in Scenarios 1 and 2 may exacerbate this problem. This is not recommended; carefully examine the impact of potential contributions on the applicant's financial condition."

This flag warns you of cases in which the applicant claims higher liabilities than assets. Clearly, the applicant should not be able to continue for long in this situation, and may have to use cash flows or new loans to make payments on current debt. Therefore, the applicant may not actually be able to make the contribution estimated in the ability to pay scenarios. You should consult a financial analyst in this situation.

## **9. Liabilities Exceed Assets with Contribution from Cash Flow**

**Flag:** "The applicant's liabilities will exceed assets if the contribution is financed using cash flow. This is not recommended; carefully examine the impacts of using cash flow to support the contribution."

This flag is triggered when an applicant has available cash flow to pay a penalty; however, committing five years of cash flow in this manner would result in the applicant's liabilities rising above his or her assets. Since having liabilities higher than one's assets results in an unstable financial situation, you should examine these impacts carefully. You should obtain the assistance of a financial expert if funding a contribution through cash flow is the only approach the model determines is viable for an applicant.

## **10. Excessive Debt Payments with Contribution from Cash Flow**

**Flag:** "The applicant's debt payments will exceed 36 percent of income if the contribution is financed using cash flow. This is not recommended; carefully examine the impact of using cash flow to support the contribution."

This flag appears when an applicant has available cash flow to fund a penalty; however, committing five years worth of cash flow would result in the applicant exceeding the 36 percent threshold in debt payments. Although the 36 percent threshold should not be viewed as a rigid barrier, you should obtain the assistance of a financial expert if funding a contribution through cash flow is the only approach the model determines is viable for an applicant.

## **11. Expenses Exceed Income with Additional Loans**

**Flag:** "The applicant's expenses will exceed income if the contribution is financed with loans. This is not recommended; carefully examine the impact of additional loans on the applicant's financial condition."

This flag arises when an applicant can afford to make a contribution by taking on additional loans; however, in doing so, the applicant's expenses rise to a new level that exceeds his or her income. You should carefully evaluate the applicant's claimed living expenses to determine whether they are inflated. If obtaining additional loans is the only approach that the model determines is available to fund a contribution, you should seek the assistance of a financial expert.

## **12. Liabilities Exceed Assets with Additional Loans**

**Flag:** "The applicant's liabilities will exceed assets if the contribution is financed with loans. This is not recommended; carefully examine the impact of additional loans on the applicant's financial condition."

This flag warns of a situation in which the applicant can obtain additional loans but in doing so, the additional liabilities from the new loans will cause his or her liabilities to exceed assets. This situation is unusual since, in most cases, such an applicant will currently have significant liabilities with associated debt payments representing more than 36 percent of their income. However, this scenario may occur when the contribution sought by EPA is particularly high.

You should seek the assistance of a financial expert if the model determines that the only way an applicant can fund a contribution is by obtaining additional loans.

## **13. Excessive Annual Debt Payments**

**Flag:** "The annual debt payments claimed as part of the applicant's living expenses on the Financial Data Request Form are far higher than we expect given the liabilities (e.g., loans) claimed by the applicant. Ask the applicant for further documentation."

This flag appears when the applicant's claimed annual debt payments are greater than could reasonably be expected from their total liabilities. Specifically, if the applicant's annual debt payments are greater than 30 percent of total liabilities, the flag will appear, warning the user of this inconsistency.

#### **14. Potential Financial Issues**

**Flag:** "The applicant's financial condition is expected to change during the next year."

**Flag:** "The applicant is currently in the process of buying or selling real estate."

**Flag:** "Another person or institution is holding real estate or personal property on the applicant's behalf (e.g., trust)."

**Flag:** "The applicant is a party in a pending lawsuit."

**Flag:** "The applicant has had belongings repossessed within the last three years."

**Flag:** "The applicant is a Trustee, Executor, or Administrator."

**Flag:** "The applicant is a participant or beneficiary of an estate or profit sharing plan."

**Flag:** "The applicant has declared bankruptcy within the last seven years."

**Flag:** "The applicant receives federal aid or public assistance."

The flags listed above are derived from page 10 of the applicant's financial data request form. These flags will appear if the applicant checked any of the boxes provided on page 10 of the form. Any of the above conditions may affect the applicant's future income. The financial data request form asks that the applicant provide a written explanation of these conditions. You should first read this explanation. Next, if you are persuaded that the applicant's financial condition may change, you should seek the assistance of a financial expert since additional model runs based on the applicant's *projected* financial status may be needed.

Returning to the example, shown in Exhibit 4-8, Mr. Flashy's finances trigger a number of flags. The first flag that appears warns that some of Mr. Flashy's income is derived from business sources that may not accurately reflect the cash flow he actually received from these sources. Indeed, Exhibit 4-1 shows that a significant portion of Mr. Flashy's income has come from business sources. Most recently, he recorded a income loss of \$2,000 in 1995 from an estate or trust that may have consisted of "paper," and not real, losses.

The third flag notes that Mr. Flashy claimed a mortgage deduction on his most recent tax return, but failed to list a value for his home on the financial data request form. The third flag reinforces this message by stating that Mr. Flashy may be under-reporting the value of his real estate. From Exhibit 4-2, you see that Mr. Flashy reported that he did not own any real estate on the financial data request form. However, Exhibit 4-1 shows that Mr. Flashy claimed to have paid \$3,000 in real estate taxes on his 1995 federal income tax form. Although, Mr. Flashy may have

recently sold his real estate holdings, more information should be obtained from Mr. Flashy. Even if he sold his real estate holdings, you should make sure that the proceeds from the sale are accurately reflected in the assets he claims on the Financial Data Request Form.

The fifth flag notes that Mr. Flashy's total income varies significantly over the years of tax return data supplied. Mr. Flashy's income has indeed dropped significantly, from over \$100,000 in 1993 to just over \$60,000 in 1995. In this case, the user may wish to raise or lower the smoothing constant depending on which years of income are more likely to predict Mr. Flashy's future cash flows. This procedure is explained in the next section.

From the sixth flag it is evident that Mr. Flashy has negative net worth, which may be aggravated by requiring a contribution from him. Again, previous flags warned that Mr. Flashy is either not claiming his home as an asset or may have recently sold it. In either case, it is highly likely that the individual financial data request form submitted by Mr. Flashy does not accurately portray his assets. The user should check with Mr. Flashy to resolve these questions.

Finally, the seventh flag warns us that if Mr. Flashy is required to pay the whole contribution with excess cash flows, his level of annual debt payment will exceed 36 percent, which is not recommended. Again, a closer examination of the effects of a contribution may be warranted here.



## Exhibit 4-8

### Individual Ability To Pay - Phase 2

Applicant: Fred Flashy  
Run Description: \$50,000 Run  
Analyst: Sue Blue

#### Unusual Elements:

- » Applicant income is reported from at least one of the following sources: rental, royalties, partnership, S Corporation, estate or trust, REMIC, farm, capital gains/losses, and other gains/losses. Consult a financial expert for assistance.
- » The income reported by the applicant on the Financial Data Request Form is more than 10% different than applicant reported on his/her latest tax return. Follow up with applicant.
- » The applicant claimed a mortgage deduction in 1995 , but did not list home residential property on the Financial Data Request Form. Follow-up with applicant.
- » The applicant may have under-reported the market value of real estate holdings. Ask the applicant to provide documentation for the basis of the market valuation.
- » The applicant's total income varies significantly from year to year. Verify your data inputs.
- » The applicant's liabilities already exceed assets. The potential contributions calculated in Scenarios 1 and 2 may exacerbate this problem. This is not recommended; carefully examine the impact of potential contributions on the applicant's financial condition.
- » The applicant's debt payments will exceed 36 percent of income if the contribution is financed using cash flow. This is not recommended; carefully examine the impact of using cash flow to support the contribution.

## **E. CHANGING THE MODEL'S STANDARD VALUES**

The Individual Ability to Pay Model gives you the opportunity to review and modify several assumptions, or "standard values" that are used in the Phase 2 analysis. However, you should not alter standard values unless you have a complete understanding of why they are inappropriate for your specific case.

The following standard values are used in the Individual Ability to Pay Model's Phase 2 analysis, and can be accessed by the user in the "Default Parameters" screen:

1. Rate of return on interest-bearing assets;
2. Interest rate on commercial loans;
3. Smoothing constant and;
4. Number of Years of Future Cash Flow Considered in Ability to Pay Assessment.

The first two standard values listed above, as well as the U.S. Department of Housing and Urban Development's Adjusted Income Limits used in Phase I of the model, are updated annually by EPA.

### **1. Rate of Return**

The rate of return on interest-bearing assets determines how much interest income certain assets should generate for the applicant. The model uses the interest rate, pre-set to 10 percent,<sup>2</sup> to check two values:

1. Interest-bearing assets of the applicant; and
2. Real estate held by the applicant.

To check whether the applicant is under-valuing interest-bearing assets on the financial data request form, the model divides the weighted average interest and dividend income from the applicant's tax returns by the default interest rate. The result is the applicant's minimum possible level of interest-bearing assets. Thus, in using a high value of 10 percent,<sup>3</sup> the model is conservative -- conservative because the higher the rate of return the model assumes, the lower the estimated minimum asset base must be to generate a given amount of interest/dividend income. If the level

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<sup>2</sup> Source: Ibbotson Associates, *Stocks, Bonds, Bills, and Inflation: 1997 Yearbook*, Table 8.1.

<sup>3</sup> A rate of return of 10 percent is slightly higher than the Ibbotson rates of return on stocks and bonds suggest for an applicant who maintains 40 percent of his or her investments in stocks and 60 percent in bonds. Since many applicants obtain investment income from retirement funds that invest cautiously, we assume that weighting bonds more heavily than stocks is reasonable.

of interest-bearing assets on the applicant's financial data request form is less than the model's estimate, it issues a flag alerting the user to this suspicious situation.

To check whether the applicant is under-valuing real estate on the financial data request form, the model divides the real estate taxes from the applicant's tax returns by the default interest rate. The result is the applicant's minimum possible level of real estate. Again, the default level of 10 percent is conservative; if the applicant's declared real estate is valued below the model's estimate, the model issues a flag alerting the user.

You should change the rate of return on interest-bearing assets in the "Default Parameters" screen of Phase 2 only if you are certain that a higher or lower rate is generated by the assets of a particular applicant. Otherwise, the conservative 10 percent estimate is appropriate. Raising the rate of return will lower the estimated asset base of the applicant, thus making the test even more conservative. Lowering the rate of return will raise the asset base estimated by the model, and will make it more likely that the model will issue a flag that the applicant is under-valuing assets.

## **2. Commercial Loan Rate**

The commercial loan rate is the interest rate that an applicant would have to pay on a short-term loan taken out to fund a contribution from a commercial lender, such as a bank. In Scenario 1, this rate is used as a proxy for the individual's opportunity cost of capital to discount the applicant's available cash flow over five years into a present value figure. In Scenario 2, this rate is used as a proxy for the interest rate the applicant would pay if he or she took out a five-year loan from a commercial lender. Currently, the model uses a loan rate of 14 percent, which is based on the interest rate for 24-month personal loans cited in the most recent Federal Reserve Bulletin, Table 1.56. This is the closest available approximation to the rate for a five-year loan from a commercial lender. In general, 24-month loans are more expensive than five-year loans, so using the interest rate on a typical 24-month loan gives a conservative ability to pay estimate.

You should change the commercial loan rate in the "Default Parameters" screen of Phase 2 only if you are certain that a higher or lower rate will be necessary for the applicant, or if you have current, more accurate information about the interest rate for personal loans than the model does. Raising the commercial loan rate will lower the estimate of the applicant's ability to fund a contribution, because it makes borrowing more expensive for the applicant. Conversely, lowering the commercial loan rate raises the applicant's ability to pay.

## **3. Smoothing Constant**

The smoothing constant is used to calculate the weighted average of the applicant's income. Like the ABEL model developed to calculate the ability to pay of corporations, the Individual Ability to Pay Model uses a smoothing constant of 0.3 to determine the weights of each year of income for

its calculations. The default value of the smoothing constant is set to 0.3 to weight the most recent year's income most heavily. The equation in which the smoothing constant is used is discussed in detail in Appendix A, where the specific weights determined by the smoothing constant are displayed in Exhibit A-2.

The smoothing constant assumes that the most recent year of income is the most accurate predictor of the applicant's future earnings potential. You should not adjust the smoothing constant, therefore, unless a) the model issues flags alerting the user to large variation in total income and a change is warranted, or b) you have other information (such as a written explanation provided by the applicant in connection with page 10 of the financial data request form) informing you that the most recent federal tax form is not a good proxy for the applicant's future income. In that case, you must decide whether to adjust the smoothing constant, based upon whether you think the year of income causing a large variation is a more accurate predictor than the other years.

Raising the smoothing constant weights the most recent year of income more heavily; lowering it lowers the weight given to the most recent year's income, simultaneously raising the weights given to the other years. You should consult Appendix A, Exhibit A-3 to determine the precise effects a change to the default smoothing constant will have on the income weights.

If, for example, the applicant's most recent year of income is significantly higher than the average, and you believe that year is a much better estimate of future cash flow than the other years, you may wish to increase the smoothing constant, in which case you will need to re-run the Phase 2 analysis so the model can make all relevant re-calculations and produce new values for weighted average income. However, if the most recent year is significantly larger than the average and you believe that this is due to an aberration in income, which will not continue in the future, you may wish to lower the smoothing constant, thereby decreasing the weight of this year's income in the calculation of total average income (and income from each source).

If you intend to change the value of one of the default values, but wish to retain the analysis that the model has already performed with the default values, you may do so easily. In the case using the pre-set default values, click the "Copy" button in the main screen of the model. The model will ask if copying the file under the old name with "\_NEW" attached to it is OK. When you click "OK," the case is copied. You can then save it with a different name, if desired, by changing the applicant name in the "Case Description Details" screen. Alternatively, you can retain the original case name and enter a different run description. Then you may proceed directly to Phase 2 Input to change the standard values in the "Default Parameters" screen. You must then re-run the Phase 2 analysis so the model can re-calculate the applicant's ability to pay based on the new values. The case analysis with the pre-set default values will still exist.

#### **4. Years of Available Cash Flow<sup>4</sup>**

The number of years of cash flow is used to calculate the total amount of the applicant's future income considered available to fund a penalty or contribution. The default value is 5 years, but you may also select 1, 2, 3, or 4 years. The model first calculates the applicant's annual weighted average cash flow based on past financial information. It then projects this annual cash flow amount into the future for the number of years of cash flow considered available. The model then calculates the present value of this stream of future cash flows using the interest rate on commercial loans as the discount rate, also specified on the "Model Default Values" screen. Please consult Appendix A for a detailed description of this calculation.

In some cases, you may wish to reduce the number of years of cash flow considered available for a penalty or contribution to less than 5 years. You may choose to alter the default value if specific circumstances surrounding a case warrant a change or if the specific enforcement policy governing the case suggests using fewer years than the default value of 5.<sup>5</sup> Decreasing the number of years of cash flow considered available decreases the applicant's ability to pay a penalty or contribution because the model calculates the lump sum of less than 5 years of future cash flows.

The following screens in Exhibit 4-9 present the modified results of the Fred Flashy example using 3 years of available cash flow. Notice that if you consider only 3 years cash flow as available for contribution, it decreases Mr. Flashy's ability to pay through cash flow (Scenario 1) from \$50,000 to \$40,720 and by obtaining additional loans (Scenario 2) from \$22,744 to \$15,033. Note also that although Mr. Flashy has a higher ability to pay under Scenario 1, the user should generally consider the lesser, more conservative conclusion of the two scenarios as the applicant's ability to pay. In this case, we suggest the applicant could afford to pay the amount suggested in Scenario 2, \$15,033.

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<sup>4</sup>This option was recently added to the Individual Ability to Pay Model. EPA Region 8, Underground Storage Tank Program, initiated and funded the modification to allow users greater flexibility in assessing a respondent's ability to pay a penalty or clean-up contribution.

<sup>5</sup>For example, some state enforcement programs employ fewer years in their ability to pay assessments.

## Exhibit 4-9

### FRED FLASHY'S ABILITY TO PAY CONSIDERING 3 YEARS OF AVAILABLE CASH FLOW

**Model Default Values**

Interest Rate on Loans:	14%
Rate of Return on Interest-bearing Assets:	10%
Weighted Average Smoothing Constant:	0.30
Number of Years of Cash Flow to consider in Ability to Pay Assessment	3

Cancel Continue Help

**Individual Ability-to-Pay Model**

? Please be aware that reducing the number of years considered reduces an individual's ability to pay.

Are you sure you wish to continue with the value of 3?

Yes No

**Ability To Pay Scenario 1: Cash Flow**

Contribution Sought by EPA	\$50,000
Cash Flow to Fund Contribution	\$18,416
Loan Rate for 3 Year Unsecured Loan	14.0%
Present Value of 3 Years' Cash Flow	\$42,756
Contingency Allowance	\$2,036
Contribution Individual Can Pay to EPA (Present Value of Cash Flow Adjusted for Allowance)	\$40,720

**Conclusion:**  
The applicant can only pay \$40,720 of the proposed \$50,000 from cash flow. Note that this conclusion considers 3 years of cash flow as being available to fund the proposed contribution.

Impact on Applicant's Financial Status:	<u>Before Contribution</u>	<u>After Contribution</u>
Total Average Income	\$74,486	\$74,486
Total Living Expenses	\$56,070	\$74,486
Available Cash Flow	\$18,416	\$0
Total Assets	\$135,000	\$135,000
Total Liabilities	\$163,000	\$203,720
Net Worth	(\$28,000)	(\$68,720)
Total Average Income	\$74,486	\$74,486
Total Annual Debt Payments	\$20,340	\$37,879
Debt Payment as a Percentage of Income	27.3%	50.9%

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**Ability To Pay Scenario 2: Loans from Commercial Lenders**

Contribution Sought by EPA	\$50,000
Current Debt Payments	\$20,340
Additional Debt Payment	\$6,475
Total Annual Debt Payments	\$26,815
3 Year Supportable Loan with Additional Debt Payment	\$15,033

**Conclusion:**

The applicant can only pay \$15,033 of the proposed \$50,000 by obtaining additional loans. Note that this conclusion considers 3 years of cash flow as being available to obtain additional loans.

Impact on Applicant's Financial Status:	<u>Before Contribution</u>	<u>After Contribution</u>
Total Average Income	\$74,486	\$74,486
Total Living Expenses	\$56,070	\$62,869
Available Cash Flow	\$18,416	\$11,617
Total Assets	\$135,000	\$135,000
Total Liabilities	\$163,000	\$178,033
Net Worth	(\$28,000)	(\$43,033)
Total Average Income	\$74,486	\$74,486
Total Annual Debt Payments	\$20,340	\$26,815
Debt Payment as a Percentage of Income	27.3%	36.0%

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## Effect of Changes in Standard Default Values

Exhibit 4-10 shows how increasing or decreasing the various standard values will change INDIPAY's ability to pay conclusion.

Exhibit 4-10		
IMPACT OF CHANGES OF STANDARD VALUES		
Variable	Direction of Change	Impact on Ability to Pay
Rate of Return on Assets	Increase	None; makes test for value of assets more conservative
	Decrease	None; makes test for value of assets less conservative
Commercial Loan Rate	Increase	Decrease level of funding available from cash flow and loans
	Decrease	Increase level of funding available from cash flow and loans
Smoothing Constant	Increase	Increases the weight given to the most recent year's income.
	Decrease	Decreases the weight given to the most recent year's income.  Impact on the applicant's ability to pay is indeterminate; depends on applicant's specific income figures.
Years of Available Cash Flow	Decrease	Decreases the number of years of cash flow considered available to fund a penalty or contribution to EPA.  Decreases the applicant's ability to pay a penalty or contribution.